X	Oral presentation
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Technical Sessions	(x)
1. Biodiversity and Ecology	x
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POPULATION VIABILITY ANALYSIS (PVA) FOR OLIVE RIDLEY TURTLES NESTING IN ALAS PURWO NATIONAL PARK, INDONESIA

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Population Viability Analysis (PVA) is a common tool used to quantitatively assess the risks of extinction and time to extinction in a population and provides justification for management responses to conserve threatened species. PVA was performed on the olive ridley turtle population nesting in Alas Purwo National Park (APNP) using the computer simulation program VORTEX, to examine the efficacy of current management applied in the park, and possible management options for the future especially given the predicted change in climate and its effects on beach and consequently nest temperatures. Forty scenarios using different emergence success and sex ratios potentially generated from the hatchery were simulated. The models revealed the importance of high emergence success from the hatchery to the long-term viability to the olive ridley turtle population nesting in the park which would not be possible under natural conditions because of the extremely high predation rate on natural nests. A skewed sex ratio to a male sex bias over time, combined with low emergence success (<70%) could negatively affect the population. Early stage mortalities of the hatchlings also influenced the population growth rate (*t=-89.500, P=0.000* for hatchling mortality). This exercise clearly highlighted the importance of the hatchery in maintaining and/or increasing the emergence success of hatchlings, and that management practices should be monitored to insure an appropriate hatchling sex ratio.

Keywords: Population Viability Analysis (PVA); *Lepidochelys olivacea*; emergence success; hatchling mortality; hatchling's sex ratio.